CLAIMS

1.- Method of producing a digital printing ink characterized by comprising the following steps:

- Proceed to dispersing coloring agents in a mixture of oligomers and monomers with a maximum particle size of 1 micron.
- dilute same with a mixture of monofunctional and multifunctional acrylic monomers until a viscosity of between 30 and 30 centipoises is obtained;
- introduce a photoinitiator system, which causes the polymerization of the oligomers and monomers from the first step, in the presence of radiation; and
- subjecting the resulting ink to a filtering process, to obtain particles by means of at least one filter, finalizing with a 1 micron filter.

2.- Method according to claim 1 characterized by obtaining the mentioned dispersing coloring agents by using a high energy ball mill, combined with a constant temperature between 35°C and 80°C, milling until an average particle size between 0.1 and 0.8 microns is obtained, combining all of the above in a mixture of monomers and dispersants.

3.- Method according to claim 1 or 2 characterized by the production of free radicals that react with the oligomers and monomers when the resulting ink is printed on a media and the referred radiation source is applied to this ink, fracturing the molecules of the photoinitiator system, thus producing a polymer that sets the dispersing coloring

agents on the media.

4.- Method according to claim 1 or 3 characterized by having Isobornyl Acrylate among the multifunctional acrylic monomers, with a ratio of 25% to 55% of total acrylic monomers.

5.- Method according to claim 1 or 3 characterized by having bifunctional and trifunctional multifunctional acrylic monomers with a ratio of 44% to 75% of total acrylic monomers.

6.- Method according to claim 5 characterized by having Hexandioldiacrylate among the bifunctional acrylic monomers.

7.- Method according to claim 5 characterized by having Tripropyleneglycoldiacrylate among the bifunctional acrylic monomers.

8.- Method according to claim 5 characterized by having Trimethylolpropanetriacrylate among the trifunctional acrylic monomers.

9.- Method according to claim 3 characterized by having the source of radiation be at least one source of ultraviolet light.

10.- Method according to claim 3 characterized by having the source of radiation be a bombardment of electrons.

11.- Digital printing ink according to the previously mentioned method characterized by comprising dispersing coloring agents in an organic medium dispersed in a mixture of oligomers and monomers with a maximum particle size of 1 micron; diluting it with a mixture of monofunctional and multifunctional acrylic monomers until a viscosity of between 10 and 30 centipoises is obtained; with a

photoinitiator system which causes the polymerization of the oligomers and monomers from the first step, subjecting the resulting ink to at least one filter, finalizing with a 1 micron filter.

12.- Ink according to claim 11 characterized by dispersing coloring agents that have an average particle size between 0.1 and 0.8 microns.

13.- Ink according to claim 12 characterized by dispersing coloring agents that are combined with a mixture of monomers and dispersants.

14.- Ink according to claim 11 or 13 characterized by having Isobornyl Acrylate as the multifunctional acrylic monomer, with a ratio of 25% to 55%.

15.- Ink according to claim 11 or 13 characterized by having bifunctional and trifunctional multifunctional acrylic monomers, with a ratio of 44% to 75%.

16.- Ink according to claim 15 characterized by having Hexandioldiacrylate among the bifunctional acrylic monomers.

17.- Ink according to claim 15 characterized by having Tripropyleneglycoldiacrylate among the bifunctional acrylic monomers.

18.- Ink according to claim 15 characterized by having Trimethylolpropanetriacrylate among the trifunctional acrylic monomers.